

**Before the  
FEDERAL COMMUNICATIONS COMMISSION  
Washington, D.C. 20554**

In the Matter of	)	
	)	
Promoting Interoperability in the 700 MHz Commercial Spectrum	)	WT Docket No. 12-69
	)	
Interoperability of Mobile User Equipment Across Paired Commercial Spectrum Blocks in the 700 MHz Band	)	RM-11592 (terminated)
	)	
	)	

**COMMENTS OF RCA – THE COMPETITIVE CARRIERS ASSOCIATION**

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RCA—The Competitive Carriers Association (“RCA”) hereby submits these comments in response to the Commission’s Notice of Proposed Rulemaking in the above-captioned proceeding (“*NPRM*”). RCA represents the interests of more than 100 competitive wireless carriers, including many rural and regional carriers. Most RCA members hold Lower 700 MHz spectrum. In fact, RCA members spent \$2 billion at auction to acquire this spectrum.

**INTRODUCTION AND SUMMARY**

It would be difficult to overstate the importance of this proceeding to the future health of the wireless industry. Although interoperability has long been a pivotal foundation of competition and innovation in the wireless sector, the 700 MHz band—which is critical to smaller carriers’ ability to compete—contains uniquely *non*-interoperable band classes. The lack of interoperability in the Lower 700 MHz band in particular has resulted in a device ecosystem controlled by AT&T that has sharply impeded competition. This lack of interoperability also has slowed the deployment of LTE services to consumers. The Commission has a vital opportunity

to take corrective steps to restore competition in a dangerously concentrated marketplace. RCA and its members applaud the Commission for issuing the *NPRM* and strongly urge the Commission to establish clear rules that will achieve interoperability in the Lower 700 MHz band.

The importance of achieving interoperability in the Lower 700 MHz band must be examined against the backdrop of the competitive concerns that afflict the wireless industry today. As RCA has explained on multiple occasions,<sup>1</sup> the wireless industry is dominated by AT&T and Verizon, and that dominance is becoming increasingly entrenched. In its *Fourteenth Wireless Competition Report*, the Commission for the first time was unable to certify that the industry was characterized by “effective competition.”<sup>2</sup> The Commission at the time pointed to “continued industry consolidation,” and noted that the Herfindahl-Hirschman Index (HHI) indicated that the industry was highly concentrated.<sup>3</sup> Unfortunately, this trend has continued, and the Commission in its most recent *Fifteenth Wireless Competition Report* observed that HHI had further increased. The Commission again was unable to certify that the industry was characterized by effective competition. The Commission noted that, from 2003 through mid-2010, industry HHI had increased from 2,151 to an alarming 2,848 (where an HHI of greater

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<sup>1</sup> See, e.g., Comments of RCA—The Competitive Carriers Association, WT Docket No. 11-186 (filed Dec. 5, 2011); Comments of RCA—The Competitive Carriers Association, WT Docket No. 11-186 (filed Apr. 13, 2012); Letter of RCA—The Competitive Carriers Association, WT Docket No. 11-186 (filed May 24, 2012); Comments of Rural Cellular Association, WT Docket No. 10-133 (filed July 30, 2010); Petition to Condition or Otherwise Deny Transactions of RCA—The Competitive Carriers Association, WT Docket No. 12-4, at 8-12 (filed Feb. 21, 2012).

<sup>2</sup> See *Annual Report and Analysis of Competitive Market Conditions With Respect to Mobile Wireless, Including Commercial Mobile Services*, Fourteenth Report, 25 FCC Rcd 11407 ¶ 3 (2010) (“*Fourteenth Wireless Competition Report*”).

<sup>3</sup> *Id.* ¶ 4.

than 2,500 indicates a “highly concentrated” market).<sup>4</sup> From the comments submitted in the *Sixteenth Wireless Competition Report*,<sup>5</sup> it seems that the state of competition has worsened yet again.

The only beneficiaries of this increased concentration have been AT&T and Verizon. In 2009, the Commission found that, due to “continued industry consolidation,” AT&T and Verizon controlled 60 percent of subscribers and revenue and “continue to gain share.”<sup>6</sup> The GAO has noted that from 2006 to 2009, AT&T and Verizon increased their subscriber market share by nearly 20 percent.<sup>7</sup> AT&T’s and Verizon’s gains have continued, with one economist concluding that AT&T and Verizon enjoy a staggering 90 percent of industry EBITDA,<sup>8</sup> and that “the competitive landscape has continued to deteriorate in the last several years.”<sup>9</sup> The Commission’s recent staff analysis issued in connection with AT&T’s now-abandoned proposal

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<sup>4</sup> See *Annual Report and Analysis of Competitive Market Conditions With Respect to Mobile Wireless, Including Commercial Mobile Services*, Fifteenth Report, WT Docket No. 10-133, ¶ 2 (June 27, 2011) (“*Fifteenth Wireless Competition Report*”).

<sup>5</sup> Comments of RCA—The Competitive Carriers Association, WT Docket No. 11-186 (filed Dec. 5, 2011); Comments of Free Press, WT Docket No. 11-186 (filed Dec. 5, 2011); Comments of RCA—The Competitive Carriers Association, WT Docket No. 11-186 (filed Apr. 13, 2011); Comments of T-Mobile USA, Inc., WT Docket No. 11-186 (filed Apr. 13, 2011); Comments of NTCH, Inc., WT Docket No. 11-186 (filed Apr. 16, 2011).

<sup>6</sup> *Fourteenth Wireless Competition Report* ¶ 3.

<sup>7</sup> Government Accountability Office, *Telecommunications: Enhanced Data Collection Could Help FCC Better Competition in the Wireless Industry*, Report to Congress, GAO-10-779, at 13 (July 2010).

<sup>8</sup> See Peter Cramton, *700 MHz Device Flexibility Promotes Competition*, (Aug. 9, 2010), attached to *Ex Parte Letter from Rebecca Murphy Thompson, General Counsel for Rural Cellular Association, to Marlene H. Dortch, Secretary, FCC*, filed in RM-11592 (Aug. 10, 2010).

<sup>9</sup> *Id.* at 3.

to acquire T-Mobile observed that AT&T and Verizon *each* accounted for over 30 percent of total subscribers and industry revenue by the end of 2010.<sup>10</sup>

The lack of interoperability in the Lower 700 MHz band is part of the vicious cycle in which the two super-carriers leverage the existing competitive imbalance to further tilt the playing field against smaller providers. AT&T in particular has used its market power to force adoption of balkanized technical standards. Its artificial segregation of Band Class 12 and creation of Band Class 17 post-auction have produced a device ecosystem in which widely available, economically reasonable handsets function only in the Lower B and C Blocks used by AT&T, and generally do not function in the Lower A Block used by smaller competitors. Absent interoperability, smaller carriers have found it difficult, if not impossible, to obtain handsets that work in the Lower A Block spectrum. In turn, smaller carriers have faced increased hurdles to obtaining roaming agreements that cover the Lower 700 MHz band—on top of AT&T’s baseline reluctance to agree to commercially reasonable roaming terms<sup>11</sup>—because of the absence of handsets that operate across the entire Lower 700 MHz band and because AT&T could claim that the networks are not “technologically compatible.”<sup>12</sup> These difficulties have frustrated competitive carriers’ efforts to build out their networks and to obtain the requisite financing on reasonable terms.

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<sup>10</sup> *Application of AT&T Inc. and Deutsche Telekom AG for Consent to Assign or Transfer Control of Licenses and Authorizations*, Staff Analysis and Findings, WT Docket No. 11-65, ¶ 37 (rel. Nov. 29, 2011).

<sup>11</sup> Despite its efforts to help stimulate competition in the roaming market, the FCC’s Data Roaming Order does not ensure 4G data roaming because it requires roaming only where technically compatible. As a result of non-interoperability in the 700 MHz band, 4G LTE networks using 700 MHz spectrum will not be technically compatible and therefore unable to roam.

<sup>12</sup> *Reexamination of Roaming Obligations of Commercial Mobile Radio Service Providers and Other Providers of Mobile Data Services*, Second Report and Order, 26 FCC Rcd 5411, ¶ 43 (2011).

The *NPRM* recognizes that “there is express agreement ... that a unified band class across the Lower 700 MHz band has the potential to yield significant benefits for all licensees.”<sup>13</sup> RCA strongly agrees with this assessment. The wireless industry is in its most precarious competitive state in over a decade, and it is time to turn the tide. The Commission can take a critical step in the right direction by implementing rules that will ensure interoperability in the Lower 700 MHz band.

While an industry-driven solution would have been ideal, this rulemaking proceeding is essential, as years of purely voluntary industry efforts have failed to yield positive results. The last few years have made clear that the absence of competitive balance among 700 MHz licensees has blocked smaller carriers’ steadfast efforts to achieve interoperability. Indeed, AT&T has thwarted every effort to achieve interoperability in the Lower 700 MHz band, and

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<sup>13</sup> *NPRM* ¶ 4. Randall Stephenson, AT&T’s Chairman and CEO, at the 2011 Mobile World Congress in Barcelona, touted the benefits of interoperability saying, “to the extent you desire [ubiquitous mobile broadband capabilities], history has shown that we have to make all these networks, make all these operating systems, interoperable. So to the extent we can get more openness, more seamlessness, more interoperability among network providers, among apps, among OS-es and devices, then the bigger we make this pie, we cause this thing to grow much faster.” Mobile Broadband 'Ubiquitous as Air', CNBC.com, Feb. 15, 2011, <http://www.cnbc.com/id/15840232?play=1&video=1796966487>. Separately, Mobeen Kahn, AT&T’s executive director for advanced mobility solutions said, “such concerns [about AT&T’s ability to partner with public safety due to each entities’ spectrum locations] are a myth. Multi-frequency, multi-protocol devices have been working in the market for a long period of time. With processing speeds and the radio capabilities, that’s really a problem that’s been solved ... so that’s really not an issue.” Donny Jackson, *Harris-AT&T Alliance Continues Partnership Trend*, Urgent Communications, Oct. 27, 2011, [http://urgentcomm.com/networks\\_and\\_systems/commentary/harris-att-continue-partner-trend-20111027/index.html](http://urgentcomm.com/networks_and_systems/commentary/harris-att-continue-partner-trend-20111027/index.html); see also Letter of Joan Marsh, Vice President - Federal Regulatory, AT&T, to Marlene H. Dortch, Secretary, FCC, filed in WT Docket No. 11-18 (Dec. 22, 2011) (noting AT&T would not object to interoperability in the Lower 700 MHz band under certain circumstances); Letter of Joan Marsh, Vice President - Federal Regulatory, AT&T, to Marlene H. Dortch, Secretary, FCC, filed in WT Docket No. 11-18 (Dec. 16, 2011) (pointing out the technical achievability of interoperability).

even if it were to announce today its willingness to cooperate and promote interoperability, the experience to date confirms that a regulatory backstop is necessary. For these reasons, RCA proposes a framework below that will harness industry expertise and bring the relevant parties together to promptly achieve interoperability—with sufficient Commission involvement and oversight to correct the existing marketplace distortions caused by AT&T’s exercise of market power. The Commission first should establish a mandate requiring interoperability in the Lower 700 MHz band before the end of this year. Then, building on successful models such as the North American Numbering Council (“NANC”), which brings together a broad cross-section of the industry to solve analogous technical challenges, the Commission here should similarly establish an advisory committee that operates under the Commission’s aegis to resolve the proven technical and engineering issues necessary to achieve interoperability in the Lower 700 MHz band. As RCA explains below, the Commission has clear legal authority to mandate interoperability, and doing so through a framework of industry cooperation backed by effective Commission oversight is strongly in the public interest.

## **DISCUSSION**

### **I. THE COMMISSION HAS AMPLE LEGAL AUTHORITY TO PROMOTE INTEROPERABILITY IN THE LOWER 700 MHZ BAND**

Although Petitioners and commenters have identified several provisions of the Communications Act that authorize the Commission to promote interoperability, the *NPRM* focuses on the Commission’s Title III authority.<sup>14</sup> RCA agrees that Title III provides the Commission with clear legal authority to achieve its goal of ensuring seamless interoperability in the Lower 700 MHz band.

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<sup>14</sup> See *NPRM* ¶¶ 58-59.

As the Supreme Court has recognized, Congress through the Communications Act “endowed the Communications Commission with comprehensive powers to promote and realize the vast potentialities of radio.”<sup>15</sup> Congress recognized the “fluid and dynamic” nature of radio communications, and rather than “attempting an itemized catalogue of the specific manifestations of the general problems for the solution of which it was establishing a regulatory agency,”<sup>16</sup> Congress instead chose to “define broad areas for regulation and to establish standards for judgment” by the FCC.<sup>17</sup> Thus, Title III of the Communications Act, “invests the Commission with an enormous discretion” to implement license conditions that it determines will serve the public interest.<sup>18</sup>

As discussed below, specific provisions of Title III give the Commission explicit authority to achieve interoperability. First, the Commission has the authority to impose conditions on licensees requiring them to operate in a manner that ensures interoperability. Second, the Commission has the authority to manage and resolve potential interference concerns from stations and devices.

**A. The Commission Has Authority To Implement Conditions on Licensees To Promote Interoperability**

Congress gave the Commission authority in Title III to regulate the *medium* of radio communications, which includes clear authority to impose conditions on licensees to ensure interoperability.

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<sup>15</sup> *National Broadcasting Co. v. United States*, 319 U.S. 190, 217 (1943).

<sup>16</sup> *Id.* at 219.

<sup>17</sup> *Id.* at 219-220.

<sup>18</sup> *Schurz Comms. v. FCC*, 982 F.2d 1043, 1048 (7th Cir. 1992).

Section 301 of the Communications Act authorizes the Commission to regulate “radio communications” and “transmission of energy by radio.”<sup>19</sup> Section 303(b) gives the Commission authority to impose obligations on spectrum licensees, including the authority to “prescribe the nature of the service to be rendered by each class of licensed stations and each station within any class.”<sup>20</sup> Section 303(r) further authorizes the Commission to “prescribe such restrictions and conditions, not inconsistent with law, as may be necessary to carry out the provisions of this Act.”<sup>21</sup> Title III also gives the Commission express authority to grant, revoke, or modify spectrum licenses, as well as to prescribe new conditions for existing licenses.<sup>22</sup> Section 316 specifically provides that “any station license ... may be modified by the Commission ... if in the judgment of the Commission such action will promote the public interest, convenience, and necessity, or the provisions of this chapter....”<sup>23</sup>

These provisions give the Commission specific authority to modify licenses and implement license restrictions that it finds are in the public interest. The Commission can employ this authority to require licensees to operate in manner that ensures interoperability as part of its authority to “prescribe the nature of service to be rendered by” licensees.<sup>24</sup> For example, the Commission can create a condition that licensees operating in the Lower 700 MHz

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<sup>19</sup> 47 U.S.C. § 301.

<sup>20</sup> *Id.* § 303(b).

<sup>21</sup> *Id.* § 303(r).

<sup>22</sup> *Id.* §§ 307, 309, 312, 316.

<sup>23</sup> *Id.* § 316(a).

<sup>24</sup> *Id.* § 303(b).

band may only employ devices that operate across the Lower 700 MHz spectrum. And it can modify existing licenses to impose such a condition.<sup>25</sup>

**B. The Commission Also Has Authority To Manage and Resolve Concerns of Potential Interference from Stations and Devices**

The Commission also has ample authority to take all steps necessary to address and resolve potential interference from base stations and devices. Title III of the Act specifically authorizes the Commission to adopt regulations that it deems necessary “to prevent interference between stations.”<sup>26</sup> The Act also authorizes the Commission to adopt regulations “governing the interference potential of devices.”<sup>27</sup> The provisions enable the Commission to take whatever steps necessary to address and resolve any concerns about interference in the course of ensuring seamless interoperability across the Lower 700 MHz band.

Taken together, these provisions of Title III, which authorize the Commission to prescribe the nature of service and implement license conditions, along with the provisions allowing the Commission to act in the public interest to regulate potential interference of devices, supply all the authority that the Commission needs to ensure interoperability in the Lower 700 MHz band.

**II. LACK OF INTEROPERABILITY IN THE LOWER 700 MHZ BAND HAS HINDERED FACILITIES DEPLOYMENT, COMPETITION, AND INNOVATION**

Ensuring interoperability in the Lower 700 MHz band is strongly in the public interest because the lack of interoperability has severely hindered deployment of 4G services in the band by smaller carriers, and has significantly impaired competition and innovation. The lack of

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<sup>25</sup> *Id.* § 316(a).

<sup>26</sup> *Id.* § 303(f).

<sup>27</sup> *Id.* § 302a.

interoperability has sidelined nearly \$2 billion in spectrum investment by RCA members. The Commission should take immediate steps to establish interoperability in the Lower 700 MHz band to restore pro-competitive conditions and further the public interest.

Interoperability has enormous benefits, particularly in the Lower 700 MHz band. As RCA and several of its members have previously stated, and provided substantial evidence in the record,<sup>28</sup> interoperability will help restore competition in the mobile market. Lower 700 MHz interoperability would foster economic recovery; stimulate job growth;<sup>29</sup> reduce the cost of devices for consumers and for public safety;<sup>30</sup> reduce government expenditures while increasing revenues at federal, state, and local levels;<sup>31</sup> generate higher auction revenue;<sup>32</sup> spur greater competition in the auction room and in the marketplace;<sup>33</sup> free up much-needed usable low-band

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<sup>28</sup> *Application of AT&T Inc. and Qualcomm Incorporated For Consent To Assign Licenses and Authorizations*, Order, WT Docket No. 11-18, ¶ 69 (Dec. 22, 2011).

<sup>29</sup> *See Martyn Roetter, Alan Pearce, and Barry Goodstadt, Non-Interoperability at 700 MHz: Lower Revenues and Higher Prices*, November 2011, available at <https://rca-usa.org/wp-content/uploads/2011/11/RCA-700MHz-Interoperability-FNL.pdf>.

<sup>30</sup> *See, e.g., Moore, Linda K., Public Safety Communications and Spectrum Resources: Policy Issues for Congress*, Congressional Research Service, Report No. R40859 (Sept. 1, 2010) (“The participation of commercial carriers in developing and deploying, for example, a common radio interface, is expected to put the costs of public safety radios in the same price range as commercial high-end devices (\$500). By contrast, interoperable radios for the narrowband networks at 700 MHz cost \$3000 and up, each.”).

<sup>31</sup> *See Martyn Roetter, Alan Pearce, and Barry Goodstadt, Non-Interoperability at 700 MHz: Lower Revenues and Higher Prices*, November 2011, available at <https://rca-usa.org/wp-content/uploads/2011/11/RCA-700MHz-Interoperability-FNL.pdf>.

<sup>32</sup> Congressional Budget Office, Cost Estimate: S. 911 Public Safety Spectrum and Wireless Innovation Act 5 (2011), available at <http://www.cbo.gov/ftpdocs/123xx/doc12322/s911.pdf>.

<sup>33</sup> *Ex Parte Letter from Michele C. Farquhar, Counsel to Vulcan Wireless, Hogan Lovells, to Marlene H. Dortch, Secretary, FCC*, filed in WT Docket No. 11-18, RM-11592 (Dec. 6, 2011).

spectrum;<sup>34</sup> encourage mobile innovation; and increase broadband coverage to more than one-third of the U.S. geography and almost 9 percent of the American population. Lack of interoperability in the 700 MHz band continues to harm consumers, industry, and the economy as a whole. If we are to accomplish the President's goal of deploying next-generation, high-speed wireless coverage to 98 percent of all Americans within five years, the FCC must restore interoperability in the Lower 700 MHz spectrum band, which will help unleash the potential of 4G services and devices.

As noted above, the 700 MHz band is the only significant spectrum band used for wireless voice and data services that is not fully interoperable. The Cellular, PCS, and AWS bands are fully interoperable, and that interoperability has been a cornerstone in delivering significant benefits and value to consumers. Without the analog compatibility standard,<sup>35</sup> for example, it is hard to imagine that the two cellular bands would have developed as quickly, giving birth to a competitive wireless industry. As former FCC Chairman Reed Hundt remarked in 1996 while facing the task of implementing the Telecommunications Act of 1996, “connectivity and interoperability are things Congress wants preserved. Congress wants them preserved because they support and promote competition and the benefits that come with it, such as diversity of service offerings, lower prices, and innovation.”<sup>36</sup> While times have changed and

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<sup>34</sup> *Ex Parte Letter from Rebecca Murphy Thompson, General Counsel for RCA-The Competitive Carriers Association, to Marlene H. Dortch, Secretary, FCC, filed in RM-11592 (Mar. 15, 2012). Upon imposing an interoperability requirement, competitive carriers will be ready to deploy 4G LTE, building upon nearly \$2 billion of investment of 12 MHz of prime, 4G spectrum.*

<sup>35</sup> *See Comments of RCA—The Competitive Carriers Association, WT Docket No. 12-40, at 2 (filed May 15, 2012).*

<sup>36</sup> Reed Hundt, Chairman, Fed. Commc'n Comm'n, Speech by Reed Hundt, Network Reliability Conference (Apr. 18, 1996).

technology has evolved, this Congressional intent—for competitive connectivity and interoperability—remains.

By contrast, the Lower 700 MHz band has been balkanized because of AT&T’s success in isolating its smaller competitors that hold Lower A Block licenses. AT&T, by virtue of its market power, has manipulated the Third Generation Partnership Project (“3GPP”) standards-setting process<sup>37</sup> and insisted on the development of devices that operate only in Band Class 17, isolating the Lower A Block. As a result, many competitive wireless carriers have found it difficult, if not impossible, to obtain handsets that operate in the Lower A Block spectrum. Competitive carriers, even working in concert, simply lack the scale to obtain, at reasonable costs, handsets that operate on distinct bands from those being developed for AT&T. The result is that the universe of handsets that operates in the Lower 700 MHz band consists largely of devices that operate on AT&T’s—and no other—network.

This has provided AT&T a significant head start in providing 4G LTE in the Lower 700 MHz band. Currently, AT&T boasts 39 LTE markets and offers approximately 23 LTE devices.<sup>38</sup> Only one competitive carrier, US Cellular, has independently launched LTE in the

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<sup>37</sup> See *Ex Parte Letter from Michele C. Farquhar, Counsel to Vulcan Wireless, Hogan Lovells, to Marlene H. Dortch, Secretary, FCC*, filed in WT Docket No. 11-18, RM-11592 (Dec. 14, 2011). Despite AT&T’s claims of interference, a real-world study commissioned by a consortium of several Lower 700 MHz A Block licenses “found that the anticipated interference circumstances were unfounded and the underlying assumptions put forth for a separate Lower 700 MHz Band Class 17 were overstated.” *Ex Parte Letter from Michele C. Farquhar, Counsel to Vulcan Wireless, Hogan Lovells, to Marlene H. Dortch, Secretary, FCC*, filed in WT Docket No. 11-18, RM-11592 (Nov. 25, 2011); see also *Ex Parte Letter from Rebecca Murphy Thompson, General Counsel for RCA-The Competitive Carriers Association, to Marlene H. Dortch, Secretary, FCC*, filed in RM-11592 (Aug. 10, 2010).

<sup>38</sup> Jessica Dolcourt, *AT&T’s 4G LTE Markets Now Total 39, Trail Verizon’s 258*, CNET, May 31, 2012, [http://news.cnet.com/8301-1035\\_3-57444528-94/at-ts-4g-lte-markets-now-total-39-trail-verizons-258/](http://news.cnet.com/8301-1035_3-57444528-94/at-ts-4g-lte-markets-now-total-39-trail-verizons-258/); AT&T Wireless, AT&T 4G LTE, <http://www.att.com/network/>; AT&T Wireless, <http://www.wireless.att.com/>.

Lower 700 MHz spectrum with a smartphone. Additional competitive carrier LTE deployments have been delayed and/or limited by the continued fragmentation of the Lower 700 MHz spectrum band.<sup>39</sup> AT&T's head start, which allows it to strengthen its competitive advantage, is just one of the negative competitive consequences resulting from the lack of interoperability in the Lower 700 MHz spectrum.

RCA recently commissioned an economic study that concluded that non-interoperability across the 700 MHz spectrum band has created a number of serious adverse consequences.<sup>40</sup> Specifically, the authors concluded that non-interoperability will raise the costs of public sector services that rely on wireless services and reduce broadband-enabled growth in economic activity and employment. These costs will harm governmental budgets at all levels, and could reduce federal revenues by potentially "several tens of billions of dollars from spectrum auctions alone."<sup>41</sup>

Competitive carriers' experience in attempting to compete using Lower 700 MHz spectrum confirms that interoperability is a prerequisite to a well-functioning wireless marketplace. Perhaps most importantly, interoperability will improve the business case for carriers to deploy 4G networks in the Lower 700 MHz A Block, which will be necessary to give them a fighting chance against larger competitors. Today, Lower 700 MHz A Block holders face enormous challenges because of the absence of interoperability and the resultant dearth of

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<sup>39</sup> *Ex Parte Letter from Rebecca Murphy Thompson, General Counsel for RCA-The Competitive Carriers Association, to Marlene H. Dortch, Secretary, FCC, filed in RM-11592 (Mar. 15, 2012). Upon imposing an interoperability requirement, competitive carriers will be ready to deploy 4G LTE, building upon nearly \$2 billion of investment of 12 MHz of prime, 4G spectrum.*

<sup>40</sup> *See Martyn Roetter, Alan Pearce, and Barry Goodstadt, Non-Interoperability at 700 MHz: Lower Revenues and Higher Prices, November 2011, available at <https://rca-usa.org/wp-content/uploads/2011/11/RCA-700MHz-Interoperability-FNL.pdf>.*

<sup>41</sup> *Id.* at 1.

available handsets. Without the assurance of available devices, carriers cannot project sufficient revenues to offset deployment costs or attract capital on reasonable terms to finance the build out of that spectrum. As a result, competitive carriers have reduced financial incentives and ability to deploy in the Lower 700 MHz A Block. Carriers holding A, B and E Block licenses face looming build-out deadlines, and the only way for the Commission to enable timely deployment in the Lower 700 MHz A Block is to establish interoperability.<sup>42</sup> Doing so will be particularly beneficial to consumers in rural areas, many of whom depend on smaller carriers to serve them.

More broadly, interoperability is necessary to enable smaller competitors to increase their economies of scale and to provide stronger competition to AT&T. It will boost innovation and give consumers greater choice among competing carriers and devices. And it should increase competitive carriers' prospect of obtaining roaming agreements, because the availability of devices that operate across the Lower 700 MHz band is a technical prerequisite to achieving roaming arrangements using AT&T's 700 MHz spectrum.

### **III. PROMPT COMMISSION ACTION IS URGENTLY NECESSARY TO ENSURE INTEROPERABILITY IN THE 700 MHZ BAND AND TO PROMOTE RAPID DEPLOYMENT AND INCREASED COMPETITION**

The *NPRM* notes that “an industry solution to the question of interoperability in the Lower 700 MHz band would be preferable because such a solution allows the market greater flexibility in responding to evolving consumer needs and dynamic and fast-paced technological developments.”<sup>43</sup> RCA agrees that an industry solution would leverage industry expertise to resolve the technical issues necessary to achieve interoperability. However, competitive carriers have been attempting to reach an industry solution for several years and have been stymied at

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<sup>42</sup> Indeed, even assuming an interoperability solution is developed in the near term, build-out extensions will be necessary for many carriers.

<sup>43</sup> *NPRM* ¶ 49.

every turn by AT&T. Despite many years of work, the lack of interoperability in the Lower 700 MHz band remains an intractable problem. It is now clear that voluntary industry efforts alone are insufficient, and prompt Commission action is necessary. Indeed, the Commission's issuance of the *NPRM* represents an important acknowledgement that voluntary efforts alone are inadequate.<sup>44</sup>

The Commission therefore should impose an interoperability mandate and set a firm date for compliance. As discussed above, the Commission has the legal authority to impose such a mandate. The Commission can require all wireless licensees operating the Lower 700 MHz band to conduct their operations in a manner that ensures interoperability, starting by restoring Band Class 12 and requiring licensees in the A, B and C Blocks employ devices that operate in Band Class 12 only. The Commission can do so as a spectrum license condition, and can take whatever steps are necessary to address and mitigate any proven interference concerns. These steps are in the public interest and within the Commission's statutory authority.

While the Commission should adopt an interoperability requirement and set a certain date for compliance, the Commission need not develop technical standards for achieving interoperability in a vacuum. Rather, it should implement procedures that will enable the industry to work together to find technical solutions to the interoperability problem, yet with sufficient Commission involvement and oversight, and backed by the mandated timeframe for compliance, to correct the marketplace distortions caused by AT&T's exercise of market power and manipulation of the 3GPP standards-setting process. The Commission can thereby leverage

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<sup>44</sup> The Commission itself previously expressed its concern that "individual private negotiations with other Lower 700 MHz licensees may not be able to successfully resolve these concerns in a timely and consistent manner . . . ." *Application of AT&T Inc. and Qualcomm Incorporated For Consent To Assign Licenses and Authorizations*, Order, WT Docket No. 11-18, ¶¶ 66–67 (Dec. 22, 2011).

industry expertise to make interoperability a reality, yet with guidance and, if necessary, course corrections from the Commission.

One model that the Commission should look to for guidance is the Commission’s delegation of authority to the North American Numbering Council (“NANC”) to approve or disapprove all Number Portability Administration Service Management System changes.<sup>45</sup> The NANC is an advisory committee under the Federal Advisory Committee Act,<sup>46</sup> with membership consisting of a broad cross-section of the industry. Commission staff members also attend and participate in meetings. The Commission determined that the NANC would have oversight of change management processes, and accordingly implemented a procedure by which parties could bring matters to the NANC so that it could recommend resolution to the Commission. The Commission recognized that an industry-led process could “permit fair and efficient overall administration of numbering resources ... while leveraging the expertise and innovation of industry.”<sup>47</sup> At the same time, the Commission acknowledged that it “must take an active role” to ensure that an industry-driven process operates “in a competitively neutral manner.”<sup>48</sup> In addition, the Commission authorized the NANC to submit disputed issues to the Commission for resolution, such that the Commission would be “the final arbiter of all disputes.”<sup>49</sup> This procedure has allowed industry to come together to resolve issues, with a backstop of review by the Commission.

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<sup>45</sup> See *Administration of the North American Numbering Plan*, Report and Order, 11 FCC Rcd 2588 (1995) (establishing the NANC).

<sup>46</sup> *Id.* ¶¶ 42-53.

<sup>47</sup> *Id.* ¶ 25.

<sup>48</sup> *Id.* ¶ 27.

<sup>49</sup> *Id.* ¶ 39.

With regard to interoperability, the Commission should promptly convene a similar industry committee to address and resolve proven technical issues necessary to achieve interoperability. The Commission should establish an advisory committee comprising a representative cross section of industry participants, device manufacturers, and Commission staff to develop solutions and make recommendations to the Commission. The Commission should charge the advisory committee with the mission of promptly developing a solution for Lower A Block interoperability, as that presents the most significant impediment to facilities deployment and increased competition, after which the committee should explore solutions for interoperability throughout the 700 MHz band. The Commission also should make clear that it retains the authority to review and confirm, modify, or reject the committee's proposals. Such a mechanism would harness industry expertise on a complex issue that involves technical, engineering, and policy concerns while facilitating resolution via consensus. RCA and its members would welcome an opportunity to participate in such a process.

While all parties agree that industry engagement is necessary to achieve interoperability, it is also essential for there to be sufficient involvement and oversight by the Commission to prevent AT&T's exercise of market power from continuing to thwart development of a balanced solution. AT&T has used its market dominance to dictate the technical standards applicable to Lower 700 MHz band operations, and the current lack of interoperability is a direct result of its ability to wield its dominant position to impair rivals' ability to compete. To ensure that any "industry" solution does not simply perpetuate AT&T's anticompetitive priorities, including delaying competitive carriers 4G LTE deployments, the Commission not only should set a firm date for compliance with an interoperability obligation, but also should appoint personnel to participate in the advisory committee and preserve the option of altering committee

recommendations as necessary to promote the public interest. And the Commission should ensure that the advisory committee is tasked with addressing and resolving only legitimate technical issues, so that the committee's mandate does not become derailed by, for example, claims of interference by AT&T that lack any basis in fact.<sup>50</sup>

The Commission also must be mindful of the timing. As noted above, the FCC should establish an interoperability requirement before the end of this year. AT&T has successfully delayed or derailed competitive carriers' 4G LTE deployments in the Lower 700 MHz band and it continues to try to delay these efforts. AT&T recently argued that even with an interoperability mandate, CDMA carriers will not be able to reap the benefits of economies of scale that result from an interoperable Lower 700 MHz band because AT&T's 4G LTE devices fall back onto GSM voice and data network. This is not simply true. As RCA as long argued, the less combination of band classes that need to be supported, the more scale that can be brought to bear on development and distribution of 4G devices, regardless of the air interface used (i.e., CDMA or GSM), and therefore increasing the availability of 4G LTE devices. Additionally, there is no difference between voice and data in an IP world, which is already upon us. Verizon noted just this week, that it will enable Voice over LTE by the end of this year.<sup>51</sup> For the benefit of Lower A Block licensees, the competitive wireless industry, and most importantly consumers, the FCC should not allow AT&T to continue to delay desired and needed 4G LTE deployments.

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<sup>50</sup> See Doug Hyslop and Paul Kolodzy, *Lower 700 MHz Test Report, Laboratory Field Testing of LTE Performance near Lower E Block and Channel 51 Broadcast Stations*, April 11, 2012, attached to Ex Parte Letter from Cavalier Wireless, LLC, et al. to Marlene H. Dortch, Secretary, Federal Communications Commission, WT Docket No. 12-69 (filed May 29, 2012).

<sup>51</sup> Phil Goldstein, *Verizon's Melone: There Is No Rush For VoLTE*, FierceWireless, May 30, 2012, [http://www.fiercewireless.com/story/verizons-melone-there-no-rush-volte/2012-05-30?utm\\_medium=nl&utm\\_source=internal](http://www.fiercewireless.com/story/verizons-melone-there-no-rush-volte/2012-05-30?utm_medium=nl&utm_source=internal).

The industry currently is in a critical period as carriers are attempting to transition to LTE technologies, and the Lower 700 MHz band is prime spectrum for deployment of such technologies. Already, the lack of interoperability has hampered deployment by competitive carriers while clearing the way for AT&T to increase its already considerable competitive advantage. Now AT&T is actively encouraging its customers using 2G devices to upgrade to 3G or 4G devices.<sup>52</sup> It makes sense that many AT&T customers will upgrade to 4G LTE, increasing the amount of new 4G devices in the market. The longer the Commission waits to resolve interoperability in the Lower 700 MHz, the longer it will take to transition from Band Class 17 to Band Class 12. Time is of the essence to reverse the competitive imbalance, and the Commission therefore should act swiftly and definitively.

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<sup>52</sup> Greg Bensinger, *AT&T Urges Customers to Upgrade from 2G Networks*, MarketWatch, Mar. 2, 2012, <http://www.marketwatch.com/story/att-urges-customers-to-upgrade-from-2g-networks-2012-03-01>.

## CONCLUSION

For the foregoing reasons, the Commission should act quickly to make interoperability in the Lower 700 MHz band—and eventually across the entire 700 MHz band—a reality. The Commission has the legal authority to implement an interoperability mandate, and doing so is strongly in the public interest. The Commission should mandate interoperability by a date certain and establish an advisory committee to leverage industry expertise to resolve the technical issues necessary to achieve interoperability.

Respectfully submitted,

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